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## Population, Resources, and Conflict

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### Workshop Summary

In coming decades, population shifts and resource pressures are more likely to exacerbate existing political conflicts rather than to directly trigger them. The balance between population, resources, and the environment is likely to improve in the next 20 years as a result of decreasing population growth rates and increasing attention to environmentally sustainable development. Tensions will persist, particularly over transborder resources such as rivers that flow between countries. One issue likely to involve the U.S. military more and more is mass movements of refugees.

### **Population**

We have become accustomed to hearing about how quickly the global population is doubling. That is now changing: the three- hundred-year world population boom appears to be entering its final generation. The World Bank projects that the next doubling of the global population will take 150 years, until 2150.

The reason for the change is simple: a fall off in birth rates. As a global average, birth rates have declined by one third since the mid-1960s: women formerly had six children on average, but only four by the beginning of the 1990s. The lower number of children per woman started in the industrial countries, but spread by the 1970s into Latin America and China; by the 1980s, into South Asia; and in the 1990s into Africa and the Middle East. The main factors behind what is called the demographic revolution have been access to contraception, higher incomes, and -- most especially -- education for women.

That is the good news. The bad news is that, because of the large number of women reaching child-bearing age, the absolute number of people being added to the world population will remain high for another 20 years. If contraception becomes more available, and if women decide to delay childbearing, population can be held to the low scenario shown in the graph on page 2. If progress slows, population growth will be at the high scenario, also shown in the graph. The key issue for public policy is how to reduce this "population momentum" so that world population increases by less than the 80-85 million per year projected for 1995-2015.

As a result of the demographic revolution, the globe is turning grey. That is, the average age of human beings is increasing. Today, there are about two people under 20 years old for each person 45 or older. In thirty years, the two groups will be of almost equal size.

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The greying of the globe has considerable socioeconomic significance. As birth rates slow, there is a drop in the proportion of the population who are children. As this occurs several decades before the number of elderly increases, there is a period during which the share of the population who are of working age is high (there being few children and few elderly). That is both an opportunity -- a large supply of potential workers -- and a challenge -- a need to create jobs. This situation describes China today and will characterize many developing nations soon. If handled well, the result can be rapid economic growth; if handled poorly, social unrest caused by youth unemployment will follow.

In succeeding decades, the proportion of the elderly in society will rise. To sustain themselves after their productive years, the elderly will need to have savings to draw on. They will have too few children and grandchildren to be able to count on them for support. Generating those savings is a major challenge facing many societies around the world. Adequate savings will provide funds for growth now and for sustaining the elderly later, while a savings shortfall could lead to unrest later as the elderly's needs place a heavier and heavier burden on the rest of society.

Whether changes in population dynamics lead to social and political conflict depends upon the adaptive capacity of society, including the structure of the social and political system. It would be inappropriate to jump from demographic facts to conclusions about whether or not a country will experience social conflict.



## **Resources**

The conventional wisdom is that the world is running out of many natural resources. By contrast, in the view of most economists, the evidence suggests that mineral and agricultural products are, if anything, becoming more readily available. Economists look at the real (inflation-adjusted) price as the best measure of economic availability or scarcity. Over the last 200 years, the long-term, inflation-adjusted price trends for a whole series of mineral and agricultural products have been stable and declining. The explanation for the price stability is the effect of technology on production costs. In some sense the global situation can be viewed as a race between technology and demand. Over the past two hundred years, technology has been winning.

There is no guarantee that the trend for stable commodity prices will persist for the next 20 years. But there appears little reason to expect a shift in the fundamental balance that has allowed for the expansion of raw material use without increased real resource prices. As the National Academy of Sciences concluded in 1986, "The scarcity of exhaustible resources is at most a minor restraint on economic growth."

## **Environment**

The world is increasingly beset by problems that involve the "global commons," that is, areas like the oceans and the atmosphere that are in some sense owned collectively by all rather than being the sovereign territory of any single nation. As is typical with a resource available without charge, the global commons has been overused without adequate concern for its long-term maintenance. Problems include thinning of the ozone layer, global warming, and depletion of fishing stocks.

The most promising means to address the problems of the global commons is through international agreements, such as the 1987 Montreal Protocol on Substances that Deplete the Ozone Layer, or the 1992 Framework Convention on Climate Change. However, there is considerable potential for conflict among states about how to address global environmental problems. Some countries may wish to be "free riders." A country may recognize that something should be done about a particular problem, but choose not to do what it may acknowledge (in private) is its fair share, believing that even if it does not participate, other countries will satisfactorily address the problem. A more complex variant occurs when a country believes that the global community is willing to induce its cooperation with various types of pay-offs.

In order to secure compliance from non-cooperating countries, the most likely route is to use trade restrictions and privileges. In other cases, the majority of countries may simply feel that it is not worth the effort to gain cooperation and will simply absorb the additional costs among themselves. Military force is not likely to be useful in most cases because of the diffuse source of the problem and the likely judgment that the loss of life would not be worth the benefit gained.

### **Transborder Resources**

Some resources naturally cross state borders. An important example is water. About 200 river basins are shared by two or more countries. Shared watersheds comprise about 47 percent of the global land area and more than 60 percent of the area on the continents of Africa, Asia, and South America.

International law provides several opposing doctrines relating to property rights over international waters: the doctrines of unlimited territorial integrity, equitable and reasonable use, and unlimited territorial sovereignty. However, the fact remains that the strongest, most clever, and most advantageously positioned countries can claim and use the resource with little concern for the impacts on others.

The outlook for agreements to share water is not particularly good. Institutions controlling water use have their roots in an era when the resource was not considered to be scarce. Cultural and religious considerations view water as too important or too scarce to have its use determined by the impersonal outcome of markets. There are relatively few precedents that demonstrate the potential advantages of efficient, integrated management of an entire river basin.

### **Refugees**

The number of refugees in the world rose from 2.8 million in 1976 to over 19 million in 1994. During the next 20 years, the continuation of huge disparities between rich and poor countries, as well as rising nationalism, violent fragmentation of existing states, and the formation of new national entities will generate mass flows of refugees.

The numbers of refugees and asylum-seekers have overwhelmed the willingness of countries to provide temporary safe havens, much less permanent homes. In the future, there will be greater emphasis on preventing the conditions that lead to refugee flows, as well as on repatriating refugees. Both require dealing with the problems in the country of origin. In other words, the response to the refugee problem may have to be increasing intervention in failed states.

The U.S. military will be working alongside relief agencies to meet humanitarian exigencies in conflict zones. While the military has instant access to a range of material and logistical resources in

transportation, communications, and medical services which are simply not available to humanitarian organizations, the objectives and working methods of the two groups of actors are different, and, in some cases, contradictory. The problem becomes acute when the military provides lightly armed escorts, instructed to fire only in self-defense, tasked with the mission of countering hostile action sufficiently well to ensure relief delivery by humanitarian groups.

In the struggle to provide aid to the displaced and other war victims, the resolution of the root causes of the conflict can easily become increasingly peripheral. If humanitarian action is not accompanied by the necessary political will or action to resolve inter-ethnic conflicts, military forces and relief agencies will become bogged down in long-standing, protracted humanitarian operations. On the other hand, if the military becomes involved in addressing the political issues that led to the initial conflict, then it could quickly be seen as partisan player.

## **Policy Implications**

Population, resource, and environment trends provide little reason to expect a breakdown in public order in numerous states. It would therefore be inappropriate to structure the U.S. military to respond to chaotic conditions in Africa, Asia, and Latin America. The issue in which the U.S. military is most likely to get involved is refugee relief, and that may well require increasing intervention in failed states before problems escalate out of control.

Population, resources, and the environment pose serious problems for the U.S. and the world community. However, there is relatively little direct role for the military in addressing these problems.

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